



Ministry of Public Safety and Solicitor General
Corrections Branch



**Community Risk Needs Assessment Study:
Four Year Follow-Up.**

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***Community Risk Needs Assessment:
Four Year Follow-up of Offenders Assessed in 1996***

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Executive Summary

This study was done to confirm the utility of Community Risk Need Assessment (CRNA) ratings as indicators of likely offender re-involvement with the corrections system over periods of time as long as four years. Earlier studies had suggested that the CRNA ratings were related to offender behaviour over time, but had used samples that had been followed for relatively short periods or one longer term sample from very early in the process of CRNA adoption with questionable validity.

Examination of Provincial Case File information from a 1996 sample after four years following initial CRNA evaluation, showed patterns consistent with those from the earlier studies.

Overall, about half of offenders had a new contact within four years. As was the case before, striking differences between offender subgroups were apparent.¹ Offenders identified as being in the high supervision category were more than twice as likely to have a new contact as were low supervision offenders within four years (76% vs. 34%). Offences associated with re-contact were most often property-related for high supervision offenders and assaults for low supervision offenders.

The situation was even more extreme when considering the criminal history risk indicator. Those rated high risk were three times as likely as low risk offenders to have a new contact within four years (89% vs. 30%).

As would be expected, offenders identified as having high needs were also much more likely than those with low needs to have a re-contact (76% vs. 36%).

Overall, examination of the relationship between CRNA indicators and offenders' return to the corrections system over a four year period following initial assessment, supports the utility of the CRNA as a classification tool for community case management.

¹ Interestingly the differences between subgroups appear to be less extreme after the four year follow-up period. But closer examination reveals this is due to continued slower recidivism in the lower level groups in comparison to rapid high recidivism in the high level groups, who nearly all "failed" within two years of assessment.

It is worth noting the ongoing rate of re-involvement of offenders evaluated as being at medium levels on the indicators. Application of the "risk principle"² suggests that most should be done for those in high level categories. However, that group largely failed within two years, even with presumably enhanced intervention, and they represented the smallest group numerically (about 16% of the sample). However, the medium level group, representing nearly a third of the sample, continued through four years to return to the corrections system at a greater rate than the low level group whose return rate was flattening. Allocation of sufficient resources to reduce the return rate of medium level offenders could be a cost effective strategy.

² Priority allocation of intervention resources to higher risk offenders.

***Community Risk Needs Assessment:
Four Year Follow-up of Offenders Assessed in 1996***

In 1995 the Corrections Branch implemented a number of risk evaluation tools to assist case managers with establishing appropriate supervision levels and to aid in planning suitable intervention strategies for offenders.

For offenders being supervised in the community, the tool in use is the Community Risk Needs Assessment. The CRNA is a rating form that includes sets of items that allow case managers to record their impressions of an offender's status on a set of risk and needs factors that have been shown to be related to the likelihood of reoffence.¹

A series of earlier studies (Corrections Branch, 1997a, 1997b, 1998, 2000; Glackman & Trytten, 2000) have examined the reliability of the CRNA and its efficacy for identifying offenders more likely to have repeated contact with the corrections system.

One of those studies (Corrections Branch, 2000) investigated the ability of the CRNA to provide information related to offender reoffence behaviour over a three year period following assessment. While that study indicated that the CRNA functioned adequately, questions remained with respect to the adequacy of the data used for the study.

The sample that was drawn from the assessments that were done during the latter part of 1995 was relatively small and a comprehensive database system for managing the data had yet to be established, resulting in some uncertainty as to the representativeness of the sample.

In addition, use of the CRNA had only begun in 1995, so there was also some question as to whether or not the CRNA was being used reliably. While this concern was alleviated by the subsequent studies showing very similar results for year one samples in 1995, 1996, and 1997, the issue of the adequacy of the 1995 sample for longer term follow-up remained.

¹ Evidence indicates that offenders who have more extensive or extreme criminal backgrounds, and more pronounced functional deficits, are more likely to be involved in reoffending.

In order to address these issues, the current study involving follow-up of the better quality 1996 sample was undertaken.

Methodology

Data Collection

In support of a series of studies of the utility of the CRNA, samples of offender records were drawn for individuals evaluated with the CRNA for three successive years (1995, 1996, & 1997). The sample sizes varied from year to year, due to actual fluctuations in the number of CRNAs done, as well limitations due to on-going systems development. (For instance, the initial sample was drawn from paper records, as data from the 1995 period was not yet entered into a computerized system.) In all cases, careful sampling techniques were used in an effort to ensure to as great an extent as possible that an adequate and representative sample was drawn for each period.

The current study focused on the 1996 sample.

Sample

Data from a random sample of 400 offenders who had been assessed with the CRNA during the latter part of 1996 and whose records were available in the automated data system were selected for inclusion in the study. (Approximately 17% of available records.) Provincial Case File (PCF) records for those individuals were accessed again at the end of September, 2000. After elimination of duplicates, cases with partial data, etc., 342 offenders were eligible for study. The maximum follow-up period at the time of the 2000 records check was somewhat more than 48 months.

Data Elements.

Data available included the CRNA item ratings, global ratings of criminal-history risk and needs, date of completion, the dates of any subsequent contacts with the corrections system, and the nature of offences associated with the initial and subsequent contacts.

Analysis

Survival analysis techniques were used to estimate aggregate recidivism rates for the offender group as a whole, and for subgroups defined in terms of suggested supervision level,

criminal-history risk, and needs ratings. Cross-tabulation procedures provided breakdowns of offence types associated with new correctional contacts.

Analyses examining the characteristics of individual CRNA items and their utility for statistical prediction are reported separately.

Patterns of Reoffence Over Time Related to CRNA Indicators

While earlier studies provided reliable information about the usefulness of the CRNA for guiding case management during the first year following its completion, this study extends the examination of the "predictive" utility of the CRNA over a longer period.

Incidence and Timing of Re-contacts for the Entire 1996 Sample Over Four-Year Follow-up

Figure 1 shows the aggregate survival function based on the 1996 sample, with respect to new correctional contacts, over a period of approximately four years. Table 1 provides a sample-based estimate of the percentage of offenders having a new contact as a function of time.

Overall, about half of offenders could be expected to have a new contact by the end of a four-year period. However, if the offender's status with reference to various CRNA indicators is taken into account, the pattern becomes more complex.

Incidence and Timing of Re-contacts Among Subgroups of Offenders

The offender re-contact data were analyzed taking into account each of the principle indicators from the CRNA, the suggested supervision level, the criminal history risk rating, and the needs rating.

Supervision Level

After considering all of the items on the CRNA, case managers assigned supervision levels as shown in Table 2.

It is clear from Figure 2 and Table 3, that offenders falling into the high suggested supervision level group are much more likely to have a new correctional contact during the four-year period

following initial assessment, as are those in the low supervision level groups.

More than three-quarters of the high suggested supervision level group had another contact within 48 months, compared with only about one-third of the low supervision level group. Two-thirds of the medium supervision group also had a new contact during the same period.

"Risk" Level Rating

The pattern of association between the CRNA rating of criminal history risk and subsequent re-involvement with the corrections system is very clear (Figure 3 and Table 4). Almost 90% of the high risk group had another correctional contact by the end of the follow-up period. (In fact, nearly all of the failures in the high group had taken place by the end of the second year following CRNA evaluation.) Offenders in the low and medium risk groups continued to fail at slower rates through the fourth year of follow-up, with about two-thirds of the former and a third of the latter still having made no re-contact with corrections.

"Needs" Level Rating

Consideration of the CRNA needs (Figure 4 and Table 5) rating showed a pattern similar to, but somewhat less extreme than, that for the risk rating. By the end of the third year, almost three-quarters of the high need offenders had another contact with corrections. The same was true for half of those rated as having medium needs, but only one in five of those with low needs.

Figure 1: Aggregated Four-Year Survival Rate
Based on 1996 Sample

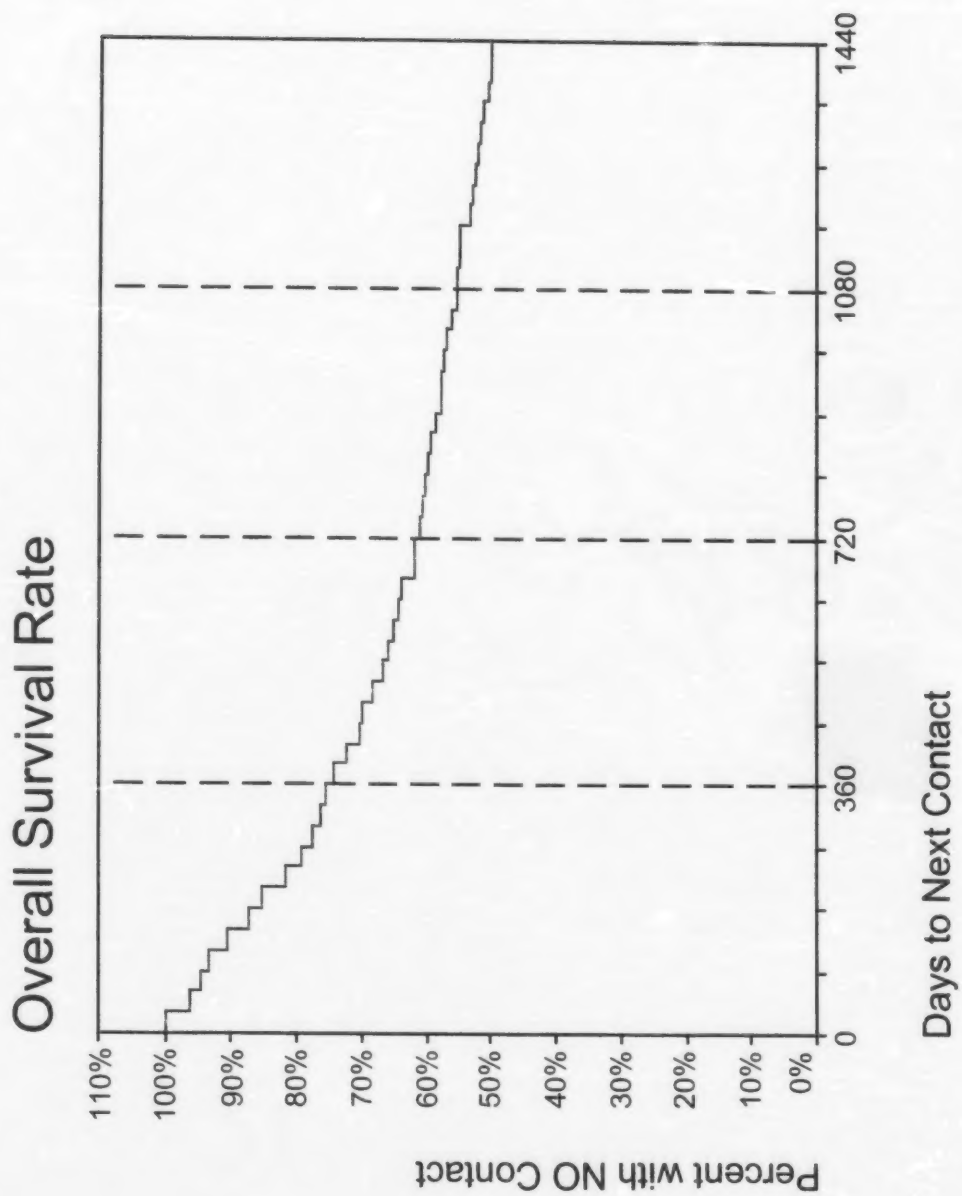


**Table 1: Percentage of Offenders with Re-contact by Time
Based on 1996 Sample**

Time	%
1 Year	25.4
2 Years	38.9
3 Years	44.7
4Years	50.2
Total	N=342

Table 2: Suggested Supervision Levels for 1996 Sample

Level:	N	%
Low	182	53.2
Medium	105	30.7
High	55	16.1
Total	342	100.0

Figure 2: Estimated Four-Year Survival Rates for Sub-Groups of Offenders Defined by Suggested Supervision Level - 1996 Sample

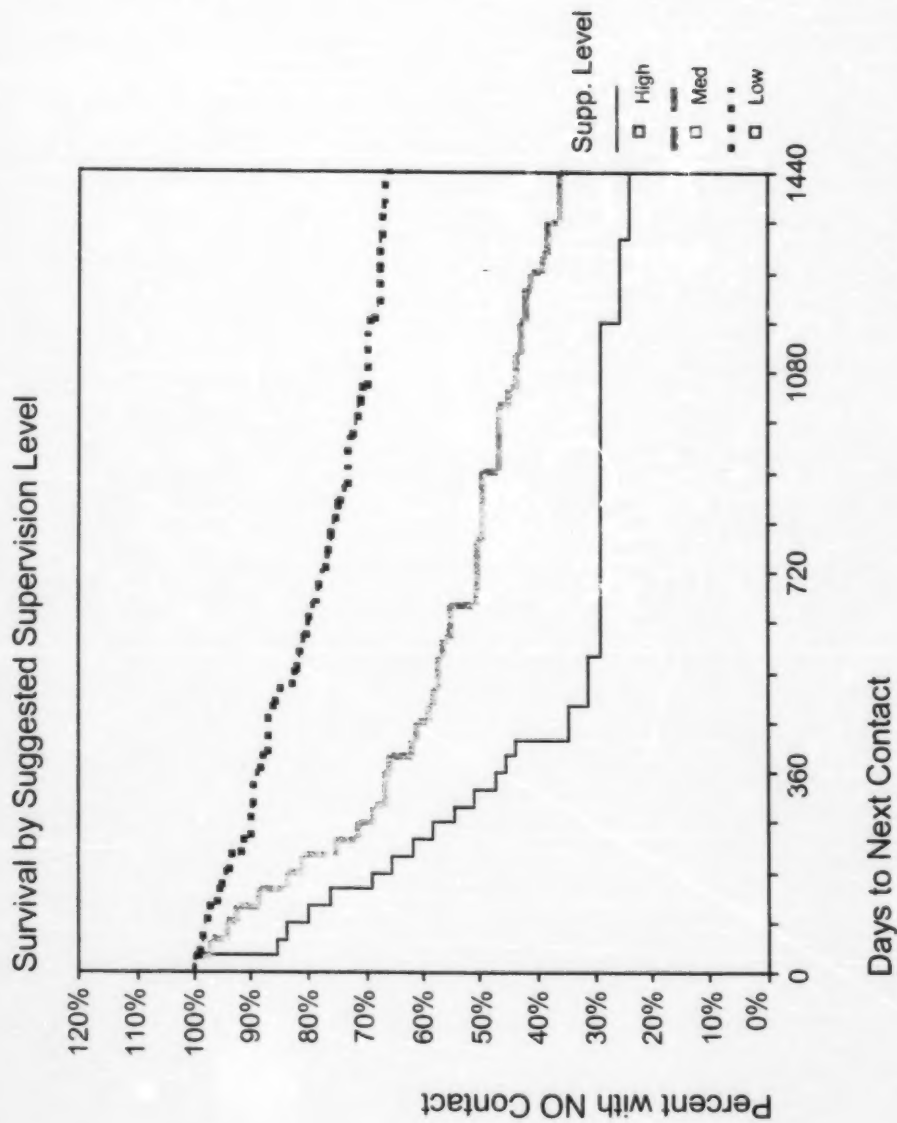


Figure 3: Estimated Four-Year Survival Rates for Sub-Groups of Offenders Defined by Criminal History Risk Rating - 1996 Sample

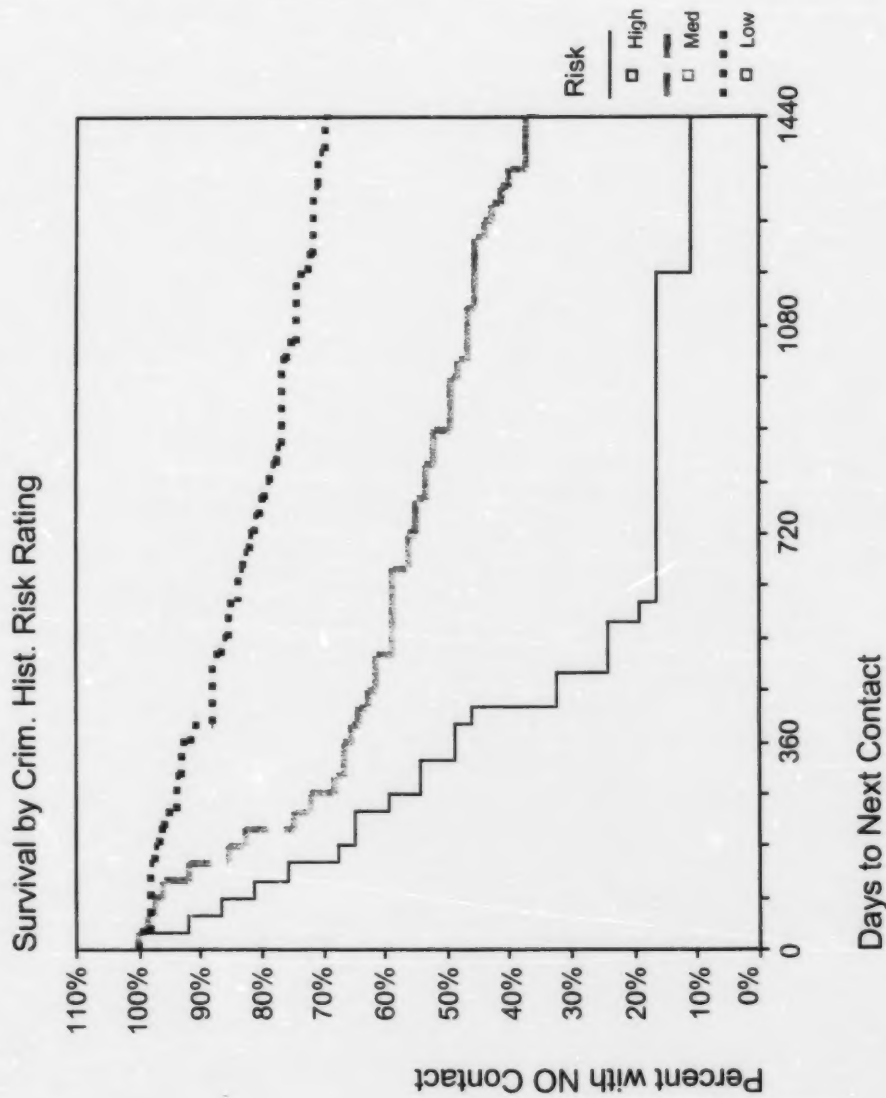


Figure 4: Estimated Four-Year Survival Rates for Sub-Groups of Offenders Defined by Needs Rating - 1996 Sample

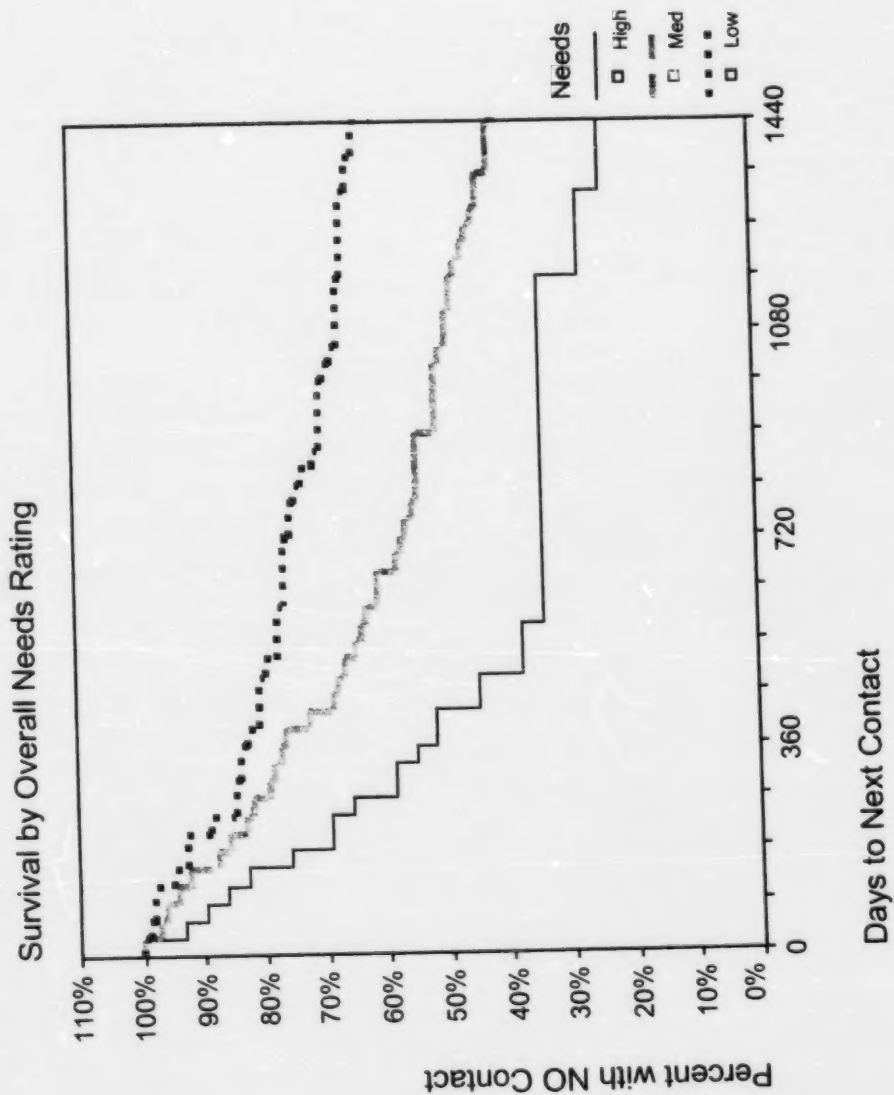


**Table 3: Estimated Percentage of Offenders Having a New Contact
by Suggested Supervision Level and Time
(Based on 1996 Sample)**

	Suggested Supervision Level		
Time	Low	Medium	High
1 Year	11.5	34.3	54.6
2 Years	23.1	49.5	70.9
3 Years	30.2	56.2	70.9
4 Years	33.5	65.5	76.4
Total	N=182	N=105	N=55

**Table 4: Estimated Percentage of Offenders Having a New Contact
by Criminal History Risk Level and Time
(Based on 1996 Sample)**

	Criminal History Risk Level		
Time	Low	Medium	High
1 Year	8.6	34.7	51.4
2 Years	19.0	45.3	83.8
3 Years	25.9	53.3	83.8
4 Years	30.2	65.1	89.2
Total	N=116	N=75	N=37

**Table 5: Estimated Percentage of Offenders Having a New Contact
by Overall Needs Rating and Time
(Based on 1996 Sample)**

	Needs Level		
Time	Low	Medium	High
1 Year	17.5	23.8	48.3
2 Years	24.7	43.8	65.5
3 Years	33.0	50.5	65.5
4 Years	36.1	59.6	75.9
Total	N=97	N=105	N=29

Nature of Offences Associated with Re-contacts Among Subgroups of Offenders Over Four-Year Follow-up

The nature of the offences associated with the occurrence of re-contacts is shown in Table 6 below. As was seen in the earlier studies, there is no strong relationship between types of offence and suggested supervision level. The medium and high supervision groups' re-contacts were most frequently associated with property offences, while assault was the most common offence associated with the return of low level offenders.

Table 6: Grouped Offences Associated with Next Contact Following CRNA by Suggested Supervision Level for 1996 Sample*

Suggested Supervision Level Sub-Group:	Low		Medium		High	
	% of Sub-Group	% of Re-Offenders	% of Sub-Group	% of Re-Offenders	% of Sub-Group	% of Re-Offenders
No Offence	65.4	n/a	35.2	n/a	23.6	n/a
Violent	24.7	71.4	29.5	45.6	29.1	38.1
Sex	0.5	1.6	1.0	1.5	9.1	11.9
Property	12.6	36.5	38.1	58.8	67.3	88.1
Motor Vehicle incl. Impaired	9.3	27.0	22.9	35.3	18.2	23.8
Oth Drg/Alc	0.0	0.0	6.7	10.3	7.3	9.5
Non-Compliance	9.3	27.0	23.8	36.8	25.5	33.3
Other	2.7	7.9	4.8	7.4	5.5	7.1
Total	N=182	N=63	N=105	N=68	N=55	N=42

* Column percentages will sum to more than 100.0 because as many as ten offences per individual may have been associated with the next contact.

Summary

The purpose of this study was to further confirm the utility of the CRNA as a tool to assist case managers in determining appropriate community offender supervision strategies. This was accomplished by showing that the supervision level, criminal history risk, and needs indicators continue to be related to offender outcomes over a four year period.

Consideration of the three indicators might lead to the conclusion that simply looking at the criminal history risk rating would provide an adequate classification. However, it should be remembered that the plots of the various indicators often involved different people. For example, some of those from the high needs group who "failed" were rated as low on criminal history risk. It is important that both ratings be considered when determining the appropriate supervision level.

The ongoing rate of re-involvement of offenders evaluated as being at medium levels on the indicators is particularly interesting from a policy perspective. Application of the "risk principle" (that priority be given to allocation of intervention resources to higher risk offenders) suggests that the most should be done for those in the high level category. However, that group mostly failed within two years, presumably even with greatly enhanced intervention, but they represented the smallest group numerically (about 16% of the sample).

In contrast, the medium level group, representing nearly a third of the sample, continued through four years to return to the corrections system at a substantially greater rate than the low level group, whose return rate was flattening. Allocation of sufficient resources to reduce the return rate of medium level offenders could be a cost effective strategy. In the extreme, leaving aside obvious other considerations, it could be most efficient to allocate maximum resources to the medium group, with minimal resources going to the high and low level groups. The former can't/won't use them effectively, while the latter don't need them.

References

- Corrections Branch, Ministry of the Attorney General, B.C. (1997a).
Community Risk Needs Assessment Outcome Study: Early
Follow-up of a Limited Sample.
- Corrections Branch, Ministry of the Attorney General, B.C. (1997b).
Community Risk/Needs Assessment (CRNA): Reliability Study
and PO Feedback Survey
- Corrections Branch, Ministry of the Attorney General, B.C. (1998).
Community Risk Needs Assessment Outcome Study:
Followup of 1995 and 1996 Samples
- Corrections Branch, Ministry of the Attorney General, B.C. (2000).
Community Risk Needs Assessment Outcome Studies: Findings
from Three Independent Offender Samples & a Three-Year
Recidivism Follow-up of a single sample.
- Glackman, W. & Trytten, T. (2000). Community Risk Needs Assessment
instrument: Follow-up of samples of offenders in British
Columbia. Paper presented at the annual meeting of the American
Society of Criminology.